```
Connecting via Winsock to Dialog


Logging in to Dialog

Trying 31060000009998...Open

DIALOG INFORMATION SERVICES
PLEASE LOGON:
 ********
ENTER PASSWORD:
 ********
Welcome to DIALOG

Dialog level 05.26.00D

Last logoff:  12aug09 09:23:50
Logon file405 12aug09 15:10:11
* * *
SYSTEM:HOME
Cost is in DialUnits
Menu System II: D2 version 1.8.0 term=ASCII
                     *** DIALOG HOMEBASE(SM) Main Menu ***

 Information:
  1.  Announcements (new files, reloads, etc.)
  2.  Database, Rates, & Command Descriptions
  3.  Help in Choosing Databases for Your Topic
  4.  Customer Services (telephone assistance, training, seminars,
etc.)
  5.  Product Descriptions

 Connections:
  6.  DIALOG(R) Document Delivery
  7.  Data Star(R)

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      /H = Help            /L = Logoff          /NOMENU = Command Mode


Enter an option number to view information or to connect to an online
 service.  Enter a BEGIN command plus a file number to search a
database
(e.g., B1 for ERIC).
? b 410

       12aug09 15:10:11 User226352 Session D1162.1
            $0.00    0.267 DialUnits FileHomeBase
     $0.00  Estimated cost FileHomeBase
     $0.00  Estimated cost this search
```

```
     $0.00  Estimated total session cost   0.267 DialUnits

File 410:The Chronolog 2009
       (c) 2009 Dialog. All rights.reserved.

      Set  Items  Description
      ---  -----  -----------
? set hi ;set hi
HILIGHT set on as ''
HILIGHT set on as ''
? b biochem
       12aug09 15:10:18 User226352 Session D1162.2
            $0.00    0.117 DialUnits File410
     $0.00  Estimated cost File410
     $0.02  TELNET
     $0.02  Estimated cost this search
     $0.02  Estimated total session cost   0.384 DialUnits

SYSTEM:OS  - DIALOG OneSearch
  File   5:Biosis Previews(R) 1926-2009/Aug W2
         (c) 2009 The Thomson Corporation
  File   6:NTIS 1964-2009/Aug W4
         (c) 2009 NTIS, Intl Cpyrght All Rights Res
  File  24:CSA Life Sciences Abstracts 1966-2009/Aug
         (c) 2009 CSA.
  File  34:SciSearch(R) Cited Ref Sci 1990-2009/Aug W1
         (c) 2009 The Thomson Corp
  File  40:Enviroline(R) 1975-2008/May
         (c) 2008 Congressional Information Service
*File  40: This file is closed and will no longer update. For
similar data, please search File 76-Environmental Sciences.
  File  41:Pollution Abstracts 1966-2009/Aug
         (c) 2009 CSA.
  File  45:EMCare 2009/Aug W1
         (c) 2009 Elsevier B.V.
  File  50:CAB Abstracts 1972-2009/Aug W2
         (c) 2009 CAB International
  File  65:Inside Conferences 1993-2009/Aug 12
         (c) 2009 BLDSC all rts. reserv.
  File  71:ELSEVIER BIOBASE 1994-2009/Aug W2
         (c) 2009 Elsevier B.V.
*File  71: The file has been reloaded. Accession numbers
have changed.
  File  72:EMBASE 1993-2009/Aug 10
         (c) 2009 Elsevier B.V.
*File  72: EMBASE Classic (File 772) now open to all Dialog customers.
See HELP NEWS 772 for information.
  File  73:EMBASE 1974-2009/Aug 10
         (c) 2009 Elsevier B.V.
*File  73: EMBASE Classic available to all Dialog customers.
See HELP NEWS 772 for information.
  File  76:Environmental Sciences 1966-2009/Aug
```

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         (c) 2009 CSA.
  File  98:General Sci Abs 1984-2009/Aug
         (c) 2009 The HW Wilson Co.
  File 103:Energy SciTec 1974-2009/Jul B2
         (c) 2009 Contains copyrighted material
*File 103: For access restrictions see Help Restrict.
  File 136:BioEngineering Abstracts 1966-2007/Jan
         (c) 2007 CSA.
*File 136: This file is closed.
  File 143:Biol. & Agric. Index 1983-2009/Jul
         (c) 2009 The HW Wilson Co
  File 144:Pascal 1973-2009/Aug W2
         (c) 2009 INIST/CNRS
  File 154:MEDLINE(R) 1990-2009/Aug 11
         (c) format only 2009 Dialog
  File 155:MEDLINE(R) 1950-2009/Aug 11
         (c) format only 2009 Dialog
  File 156:ToxFile 1965-2009/Aug W2
         (c) format only 2009 Dialog
  File 162:Global Health 1983-2009/Aug W2
         (c) 2009 CAB International
  File 172:EMBASE Alert 2009/Aug 11
         (c) 2009 Elsevier B.V.
  File 305:Analytical Abstracts 1980-2009/Jun W4
         (c) 2009 Royal Soc Chemistry
*File 305: Alert feature enhanced for multiple files, duplicate
removal, customized scheduling.  See HELP ALERT.
  File 369:New Scientist 1994-2009/Aug W1
         (c) 2009 Reed Business Information Ltd.
  File 370:Science 1996-1999/Jul W3
         (c) 1999 AAAS
*File 370: This file is closed (no updates). Use File 47 for more
current
information.
  File 393:Beilstein Database - Abstracts 2008/Q2
         (c) 2008 Beilstein GmbH
  File 399:CA SEARCH(R) 1967-2009/UD=15107
         (c) 2009 American Chemical Society
*File 399: Use is subject to the terms of your user/customer
agreement.
IPCR/8 classification codes now searchable as IC=. See HELP NEWSIPCR.
  File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 2006 The Thomson Corp

      Set  Items  Description
      ---  -----  -----------
? s (ysbC or orotate or orotic) (5n) (transpor?)
             12  YSBC
           9263  OROTATE
          19537  OROTIC
        7897667  TRANSPOR?
      S1     203  (YSBC OR OROTATE OR OROTIC) (5N) (TRANSPOR?)
```

```
? rd s1

>>>Duplicate detection is not supported for File 393.

>>>Records from unsupported files will be retained in the RD set.
      S2      97  RD S1  (unique items)
? s s2 not py>2006
              97  S2
        20271259  PY>2006
      S3      92  S2 NOT PY>2006
? s s3 and (gene or nucleic or clone or polynucleic or DNA)
Processing
Processed  20 of  29 files ...
Completed processing all files
              92  S3
        10933603  GENE
         1320192  NUCLEIC
          557564  CLONE
             664  POLYNUCLEIC
         8185040  DNA
      S4      26  S3 AND (GENE OR NUCLEIC OR CLONE OR POLYNUCLEIC OR
DNA)
? t s4/7/al
>>>'AL' not allowed as item list
? t s4/7/all
>>>Format 7 is not valid in file 143

 4/7/1     (Item 1 from file: 5)
DIALOG(R)File   5:Biosis Previews(R)
(c) 2009 The Thomson Corporation. All rts. reserv.

19125140   BIOSIS NO.: 200600470535
Mutations and rearrangements in the genome of Sulfolobus solfataticus
P2
AUTHOR: Redder Peter (Reprint); Garrett Roger A
AUTHOR ADDRESS: Inst Pasteur, Unite Biol Mol Gene Extremophiles, 25
Rue Dr
  Roux, F-75724 Paris 15, France**France
AUTHOR E-MAIL ADDRESS: predder@pasteur.fr
JOURNAL: Journal of Bacteriology  188 (12): p4198-4206 JUN 2006 2006
ISSN: 0021-9193
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The genome of Sulfolobus solfataricus P2 carries a larger
number
  of transposable elements than any other sequenced genome from an
archaeon
  or bacterium and, as a consequence, may be particularly susceptible
to
  rearrangement and change. In order to gain more insight into the
natures
```

and frequencies of different types of mutation and possible rearrangements that can occur in the genome, the pyrEF locus was examined for mutations that were isolated after selection with 5-fluoroorotic acid. About two-thirds of the 130 mutations resulted from insertions of mobile elements, including insertion sequence (IS) elements and a single nonautonomous mobile element, SM2. For each of these, the element was identified and shown to be present at its original genomic position, consistent with a progressive increase in the copy numbers of the mobile elements. In addition, several base pair substitutions, as well as small deletions, insertions, and a duplication, were observed, and about one-fifth of the mutations occurred elsewhere in the genome, possibly in an orotate transporter gene. One mutant exhibited a 5-kb genomic rearrangement at the pyrEF locus involving a two-step IS element-dependent reaction, and its boundaries were defined using a specially developed "in vitro library" strategy. Moreover, while searching for the donor mobile elements, evidence was found for two major changes that had occurred in the genome of strain P2, one constituting a single deletion of about 4% of the total genome (124 kb), while the other involved the inversion of a 25-kb region. Both were bordered by IS elements and were inferred to have arisen through recombination events.

The results underline the caution required in working experimentally with an organism such as S. solfataricus with a continually changing genome.

4/7/2 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

13736133 BIOSIS NO.: 199799370193
Utilization of orotate as a pyrimidine source by Salmonella typhimurium and Escherichia coli requires the dicarboxylate transport protein encoded by dctA
AUTHOR: Baker Kristian E; Ditullio Katrina P; Neuhard Jan; Kelln Rod A (Reprint)
AUTHOR ADDRESS: Dep. Chem., Univ. Regina, Regina, SK S4S 0A2, Canada** Canada

JOURNAL: Journal of Bacteriology 178 (24): p7099-7105 1996 1996
ISSN: 0021-9193
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Mutants deficient in orotate utilization (initially termed out
mutants) were isolated by selection for resistance to 5-fluoroorotate
(FOA), and the mutations of 12 independently obtained isolates were found
to map at 79 to 80 min on the Salmonella typhimurium chromosome. A
gene complementing the mutations was cloned and sequenced and found
to possess extensive sequence identity to characterized genes for
C4-dicarboxylate transport (dctA) in Rhizobium species and to the
sequence inferred to be the dctA gene of Escherichia coli. The
mutants were unable to utilize succinate, malate, or fumarate as sole
carbon source, an expected phenotype of dctA mutants, and introduction of
the cloned DNA resulted in restoration of both C4-dicarboxylate and
orotate utilization. Further, succinate was found to compete with orotate
for entry into the cell. The S. typhimurium dctA gene encodes a
highly hydrophobic polypeptide of 45.4 kDa, and the polypeptide was found
to be enriched in the membrane fraction of minicells harboring a dctA+
plasmid. The DNA immediately upstream of the deduced -35 region
contains a putative cyclic AMP-cyclic AMP receptor protein complex
binding site, thus affording an explanation for the more effective
utilization of orotate with glycerol than with glucose as carbon source.
The E. coli dctA gene was cloned from a lambda vector and shown to
complement C4-dicarboxylate and orotate utilization in FOA-resistant
mutants of both E. coli and S. typhimurium. The accumulated results
demonstrate that the dctA gene product, in addition to transporting
C4-dicarboxylates, mediates the transport of orotate, a
cyclic monocarboxylate.

4/7/3 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

07201654 BIOSIS NO.: 198477033565
DIFFERENT RATES OF SYNTHESIS AND TURNOVER OF RIBOSOMAL RNA IN RAT BRAIN AND
LIVER
AUTHOR: STOYKOVA A S (Reprint); DUDOV K P; DABEVA M D; HADJIOLOV A A
AUTHOR ADDRESS: INST MOLECULAR BIOLOGY, BULGARIAN ACAD SCI, 1113 SOFIA,

BULG**BULGARIA
JOURNAL: Journal of Neurochemistry 41 (4): p942-949 1983
ISSN: 0022-3042
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: The kinetics of in vivo labeling of cellular free UMP and nucleolar, nucleoplasmic, and cytoplasmic, rRNA [ribosomal RNA] with [14C]orotate in rat brain and liver were investigated. Evaluation of the experimental data shows the following result: The rate of nucleolar precursors of ribosomal RNA (pre-rRNA) synthesis and the deduced rate of ribosome formation in brain are about 5-fold lower than in liver and correspond to 220-260 ribosomes/min/nucleus. The lower rate of in vivo pre-rRNA synthesis is correlated with a lower activity of RNA polymerase I in isolated brain nuclei. The half-lives of nucleolar rRNA in brain and liver are 210 and 60 min, respectively, thus showing a slower rate of processing of pre-rRNA in brain nucleoli. The nucleo-cytoplasmic transport of ribosomes in brain is also markedly slower than in liver and reflects the lower rates of synthesis and processing of pre-rRNA. Cytoplasmic ribosomes in brain and liver turn-over with half-lives of about 6 and 4 days, respectively. The markedly lower rate of ribosome biogenesis in brain is specified mainly at the level of transcription of rRNA genes.

4/7/4 (Item 4 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

05652718 BIOSIS NO.: 197967041713
PYRIMIDINE NUCLEOTIDE BIOSYNTHESIS A STUDY OF NORMAL AND PURINE ENZYME DEFICIENT CELLS
AUTHOR: FOX I H (Reprint); BURK L; PLANET G; GOREN M; KAMINSKA J
AUTHOR ADDRESS: UNIV MICH MED CENT, ANN ARBOR, MICH 48109, USA**USA
JOURNAL: Journal of Biological Chemistry 253 (19): p6794-6800 1978
ISSN: 0021-9258
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: To evaluate the importance of altered pyrimidine synthesis in the

relationship between immune dysfunction and the deficiencies of adenosine deaminase or purine nucleoside phosphorylase, this pathway was measured in human erythrocytes or fibroblasts in vitro or in cultured diploid fibroblasts during growth. The effect of purine nucleosides on the conversion of orotic acid to UMP in intact erythrocytes or fibroblasts was assayed by the release of CO2 from orotic acid. Adenosine caused 50% inhibition (I0.5) of CO2 production at 80 μM in erythrocytes and at 270 μM in fibroblasts. Quantitatively similar changes occurred in intracellular concentrations of PP-ribose-P. Studies of the mechanism for this inhibition in erythrocytes suggest a regulatory role for PP-ribose-P concentrations. Increases or decreases of erthrocyte PP-ribose-P concentrations were accompanied by similar changes in CO2 release from orotic acid, suggesting that PP-ribose-P is rate-limiting for orotate phosphoribosyltransferase. Adenosine did not inhibit orotic acid transport into erythrocytes and did not directly inhibit orotate phosphoribosyltransferase or orotidylic decarboxylase. In cultured diploid fibroblasts, adenosine (50 or 100 μM) causes 73 or 76% inhibition, respectively, of the ratio of orotic acid to uridine incorporation into nucleic acid. There is no decrease of this ratio in cells deficient in purine nucleoside phosphorylase, adenosine deaminase or hypoxanthine-guanine phosphoribosyltransferase. Apparently adenosine blocks pyrimidine biosynthesis at orotate phosphoribosyltransferase in erythrocytes and fibroblasts. The hypothesis that a block of pyrimidine synthesis is the basis for the immune disorder in patients with deficiencies of purine nucleoside phosphorylase or adenosine deaminase was not supported.

4/7/5 (Item 5 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

05618845 BIOSIS NO.: 197967007840
EFFECT OF HEPATIC DE NERVATION ON RNA LEVELS AND CARBON-14 OROTIC-ACID INCORPORATION INTO HEPATIC NUCLEAR RNA
AUTHOR: OPANASYUK N D (Reprint); MASYUK A I; BEZDROBNYI YU V
AUTHOR ADDRESS: DIV PATHOL PHYSIOL, KIEV MED INST, KIEV, USSR**USSR
JOURNAL: Fiziolohichnyi Zhurnal (Kiev) 23 (5): p683-685 1977
ISSN: 0015-3311
DOCUMENT TYPE: Article
RECORD TYPE: Abstract

LANGUAGE: UKRAINIAN

ABSTRACT: RNA level increased to 15% above control in Wistar rats on the
9th day after ligation of the plexus near the porta hepatis; ligation did
not affect DNA levels. The RNA/DNA ratio increased 1.34-fold.
After 21 days, RNA levels dropped to preligation levels; the decrease in
DNA levels at this time was related to dystrophic changes in the
liver. The RNA/DNA ration remained above control. The rate of
14C-orotic acid incorporation into the thermophenol fraction of nuclear
RNA was studied to determine causes of RNA increase on the 9th day.
14C-orotic acid incorporation into 40S RNA increased 1.8-fold while no
changes were noted in incorporation into 65S RNA. Changes in 14C-orotic
acid incorporation was related to RNA synthesis and orotic acid
transport across the cell membrane. Increases in RNA levels after
ligation are due to increased synthesis of ribosomal RNA and activation
of protein synthesis mechanisms in the cell. The nervous system
regulates, therefore, hepatic metabolism through the hepatocyte genetic
system.

4/7/6 (Item 1 from file: 24)
DIALOG(R)File 24:CSA Life Sciences Abstracts

0002902845 IP ACCESSION NO: 6947339
Mutations and Rearrangements in the Genome of Sulfolobus solfataricus P2

Redder, Peter; Garrett, Roger A
Danish Archaea Centre, Institute for Molecular Biology and Physiology, Copenhagen University, Soelvgade 83H, DK-1307 Copenhagen K, Denmark

Journal of Bacteriology, v 188, n 12, p 4198-4206, June 2006
PUBLICATION DATE: 2006

PUBLISHER: American Society for Microbiology, 1752 N Street N.W. Washington, DC 20036 USA, [URL:http://www.asm.org/]

DOCUMENT TYPE: Journal Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English
ISSN: 0021-9193
ELECTRONIC ISSN: 1098-5530

FILE SEGMENT: Genetics Abstracts; Bacteriology Abstracts (Microbiology B)
ABSTRACT:
The genome of Sulfolobus solfataricus P2 carries a larger number of transposable elements than any other sequenced genome from an archaeon or bacterium and, as a consequence, may be particularly susceptible to rearrangement and change. In order to gain more insight into the natures and frequencies of different types of mutation and possible rearrangements that can occur in the genome, the pyrEF locus was examined for mutations that were isolated after selection with 5-fluoroorotic acid. About two-thirds of the 130 mutations resulted from insertions of mobile elements, including insertion sequence (IS) elements and a single nonautonomous mobile element, SM2. For each of these, the element was identified and shown to be present at its original genomic position, consistent with a progressive increase in the copy numbers of the mobile elements. In addition, several base pair substitutions, as well as small deletions, insertions, and a duplication, were observed, and about one-fifth of the mutations occurred elsewhere in the genome, possibly in an orotate transporter gene. One mutant exhibited a 5-kb genomic rearrangement at the pyrEF locus involving a two-step IS element-dependent reaction, and its boundaries were defined using a specially developed "in vitro library" strategy. Moreover, while searching for the donor mobile elements, evidence was found for two major changes that had occurred in the genome of strain P2, one constituting a single deletion of about 4% of the total genome (124 kb), while the other involved the inversion of a 25-kb region. Both were bordered by IS elements and were inferred to have arisen through recombination events. The results underline the caution required in working experimentally with an organism such as S. solfataricus with a continually changing genome.

4/7/7 (Item 1 from file: 50)
DIALOG(R)File 50:CAB Abstracts

0005541318 CAB Accession Number: 19851465564
Effects of long-term maternal protein restriction on liver DNA, RNA and protein metabolism and subcellular distribution in developing rat.

Lewis, C. G.; Cheng, M.; Winick, M.
Inst. Human Nutrition, Columbia University, College of Physicians and
Surgeon, New York, NY 10032, USA.
Nutrition Reports International volume 30 (1): p.199-211
Publication Year: 1984
Language: English
Record Type: Abstract
Document Type: Journal article

Pregnant rats were fed on a 25% casein diet (control) or switched to a
6% casein diet at the beginning of the final third of pregnancy and to a
10% casein diet after giving birth (malnourished). All rats were fed
freely and at birth all litters were reduced to 8. From 13 to 21 days of
age, total liver DNA (cell number) and the incorporation of [sup
3H]thymidine into DNA was significantly retarded in malnourished
young. Total liver RNA and protein content were retarded in malnourished
young but cellular RNA and protein content and subcellular distribution
were not different from control values. There was no difference in
incorporation of label from [SUP 14 C]orotate into RNA,
transport of RNA from nucleus to cytoplasm, subcellular fractional
distribution or RNA half-life when compared to control values. It it
suggested that the 3 weeks of perinatal malnutrition represent long-term
nutritional deprivation to the rapidly growing young and that the liver
has adapted to protein malnutrition by reducing total organ cell number to
maintain functional capacity and integrity of existing cells.
21 reference

0071652423 EMBASE No: 1980095172
Biochemistry of Plasmodium (malarial parasites)
Sherman I.W.
Dept. Biol., University California, Riverside, Calif. 92521, United States:
CORRESP. AUTHOR/AFFIL: Dept. Biol., University California, Riverside, Calif.
92521, United States

Microbiological Reviews (MICROBIOL. REV.) (United States)
December 1,
1979, 43/4 (453-495)
CODEN: MBRED ISSN: 0146-0749
DOCUMENT TYPE: Journal; Review RECORD TYPE: Abstract
LANGUAGE: English

Intraerythrocytically, bird and mammalian malarias appear to derive energy by metabolizing glucose to lactic acid via a conventional pathway of anaerobic glycolysis. If supplied with oxygen, avian parasites may oxidize a portion of the pyruvate to CO SUB 2 and water by means of the citric acid cycle, whereas rodent and primate malarias, which lack a functional citric acid cycle, are unable to do so and have lactate as their primary end product. Erythrocyte-free P. gallinaceum cells produce appreciable quantities of acetate from glucose and pyruvate. Since plasmodia are unable to synthesize CoA de novo, it is possible that in P. gallinaceum acetate formation is due to a lack of host-supplied CoA. In P.knowlesi it may be that volatile acids are formed by a pyruvate clastic reaction, but the enzymes involved (if they exist) have not been looked for. However, in view of the fragile nature of free parasites, acetate and formate production may reflect deranged metabolism due to in situ leakiness of plasmodia or may be a consequence of insult during the isolation procedure. There is no evidence for a pentose phosphate shunt in malarial parasites since the first enzyme in the pathway (G6PDH) is absent. Indeed, the only enzyme in this pathway that has been identified consistently is 6-phosphogluconate dehydrogenase. Lacking a pentose shunt, the parasites must have other means for obtaining ribose and reducing NADP. It has been suggested that action by phosphorylases supplies the pentoses and that glutamic dehydrogenase provides for the reduction of NADP. Evidence for an energy-yielding electron transport chain is at best circumstantial. In all of the malarias studied, the only enzyme found to be associated with this system is cytochrome oxidase. It is conceivable that in the acristate rodent malarias and in P. knowlesi, and perhaps even in those malarias having cristate mitochondria (avians and P. falciparum), cytochrome oxidase is involved in

the de novo pyrimidine biosynthetic pathway and not in energy-yielding reactions. Malarial parasites are incapable of de novo purine biosynthesis;
however, pyrimidines are synthesized de novo. Exogenously supplied purines
and orotic acid are transported and incorporated by infected erythrocytes and plasmodia, whereas pyrimidines (uracil and thymidine) are
not. There is evidence to support the contention that hypoxanthine is the
preferred purine of the parasites in vivo and that it is derived from the
catabolism of erythrocytic ATP. Plasmodia have a distinctive DNA and rRNA base composition. Malarial parasite ribosomes are not provided for by
host cell ribosomal subparticles, and the mechanism of protein synthesis by
the parasites is typically eucaryotic. The capacity of the parasites for de
novo amino acid biosynthesis is limited, and it appears that host cell hemoglobin provides most of the amino acids. For some species, isoleucine
and methionine must be supplied exogenously for good plasmodial growth. The
degradation of erythrocyte hemoglobin by parasite proteases leaves a golden
brown-black residue called hemozoin (malarial pigment). Hemozoin consists
of insoluble monomers and dimers of hematin, methemoglobin, and ferriprotoporphyrin coupled to plasmodial protein. The functional significance of hemozoin is not completely understood. The only well-characterized plasmodial protein is the HRP of P. lophurae. It is possible that HRP is localized in the polar organelles of the merozoites
and is involved in the process of invasion. Information regarding the vitamin requirements of malarial parasites is scanty. Plasmodia are incapable of synthesizing CoA from pantothenate and rely on the host cell
for this cofactor; this may be one reason for their being obligate intracellular parasites. By contrast, Plasmodium can synthesize folate from
pABA.

4/7/9 (Item 2 from file: 73)
DIALOG(R)File 73:EMBASE

0070373498 EMBASE No: 1975157339
Incorporation of precursors and inhibitors of nucleic acid synthesis into hepatomas and liver of the rat
Lea M.A.; Bullock J.; Khalil F.L.; Morris H.P.

Dept. Biochem., New Jersey Med. Sch., Newark, N.J. 07103, United States:
CORRESP. AUTHOR/AFFIL: Dept. Biochem., New Jersey Med. Sch., Newark, N.J.
07103, United States

Cancer Research (CANCER RES.) December 1, 1974, 34/12 (3414-3420)
CODEN: CNREA ISSN: 0008-5472
DOCUMENT TYPE: Journal; Article RECORD TYPE: Abstract
LANGUAGE: English

In order to evaluate the entry of nucleic acid precursors into transplanted hepatomas and to examine the relationship to growth rate, the incorporation of isotope label was measured in tissue fractions. The low rate of incorporation of orotate into RNA of hepatomas in comparison with liver was confirmed and found to occur even in the most slowly growing tumors. A similar pattern was observed for the incorporation of orotate into the acid soluble fraction. Under appropriate conditions, all the hepatomas examined were able to achieve an orotate incorporation greater than that in blood and several other tissues. Similar data were obtained 60 min after either i.p. or s.c. injections. Studies with several other molecules including dihydroorotate, uracil, uridine, thymidine, inorganic phosphate, 5 fluorouracil, and hycanthone did not show such pronounced changes in hepatomas but did suggest that uptake of these compounds is less in more rapidly growing liver tumors than in the slowly growing tumors. From the unequal incorporation of different molecules into a given tumor, from temporal studies of uptake, and from a comparative uptake study of s.c. and intrahepatic tumors, it was concluded that the vascular supply was not the sole determinant for the relative uptake of orotate in different tumor tissues. The data suggested that a transport mechanism for orotate may be impaired in hepatic neoplasia. As the regenerating liver did not show this transition, it does not appear to be an essential feature of cellular proliferation.

0070179484 EMBASE No: 1974181078

Biochemical effects of miconazole on fungi I. Effects on the uptake and/or utilization of purines, pyrimidines, nucleosides, amino acids and glucose by Candida albicans

Van Den Bossche H.

Dept. Comp. Biochem., Res. Laboratory, Janssen Pharmaceut., Beerse, Belgium:

CORRESP. AUTHOR/AFFIL: Dept. Comp. Biochem., Res. Laboratory, Janssen Pharmaceut., Beerse, Belgium

Biochemical Pharmacology (BIOCHEM. PHARMACOL.) January 1, 1974, 23/4

(887-899)

CODEN: BCPCA ISSN: 0006-2952

DOI: 10.1016/0006-2952(74)90220-2

DOCUMENT TYPE: Journal; Article RECORD TYPE: Abstract

LANGUAGE: English

The antifungal and antibacterial drug miconazole has been shown to inhibit, at concentrations lower than those affecting growth, the transport of adenine, guanine and l11w2=hypoxanthine by Candida albicans in suspension culture. The decrease in the incorporation of purines into nucleic acids seems to be the consequence of an inhibitory effect on their uptake into the cells. When the purines were replaced by adenosine, deoxyadenosine and guanosine, miconazole increased the uptake and incorporation of the radioactivity derived from the nucleosides into macromolecules. The data suggest that the drug induced increase of nucleoside incorporation into nucleic acids is secondary to enhanced nucleoside transport. Miconazole also slightly affected the uptake of orotic acid. The transport of glucose, glycine and leucine was not affected by miconazole whereas in some way the drug affected glutamine uptake. Studies on the distribution of miconazole and/or its metabolites in the Candida cell indicate that in log phase cells most of the radioactivity was found in the fraction containing cell walls and plasmalemma. In stationary phase cells the highest radioactivity was found in the fraction which contained the microsomes. Although more information will be needed, the data presented indicate that at low concentrations, miconazole acts primarily on the yeast cell membranes (cell wall and plasmalemma) resulting in a selective inhibition of the uptake of precursors of RNA and DNA (purines) and mucopolysaccharide (glutamine). Higher doses and longer

incubation periods also alter the activities of microsomal membranes.

4/7/11 (Item 1 from file: 103)
DIALOG(R)File 103:Energy SciTec

01797832 INS-86-020998; EDB-86-121620
Title: Incorporation of labeled ribonucleic acid precursors into maternal and fetal rat tissues during pregnancy
Author(s): Dorko, M.E.; Hayashi, T.T.
Affiliation: University of Pittsburgh School of Medicine, PA
Source: Am. J. Obstet. Gynecol. (United States) v 4. Coden: AJOGA
Publication Date: Apr 1986
p 801-805
Language: English
Abstract: Tritium-labeled ribonucleic acid precursors, including cytidine, uridine, and orotic acid, were injected into rats with dated pregnancies (14 to 21 days) and virgin rats. The acid-insoluble counts indicating incorporation into fetal and placental tissues showed that the highest incorporation occurred with cytidine, particularly earlier in pregnancy. In contrast, uridine demonstrated a minor degree of incorporation but displayed facile and enhanced transplacental passage with duration of pregnancy as represented by acid-soluble counts. Orotic acid was minimally used by both fetal and placental tissues. The incorporation of labeled precursors into maternal liver, heart, and kidney demonstrated varying responses during the course of pregnancy.

4/7/12 (Item 1 from file: 154)
DIALOG(R)File 154:MEDLINE(R)

17528180 PMID: 16968882
A fluoroorotic acid-resistant mutant of Arabidopsis defective in the uptake of uracil.
Mourad George S; Snook Bryan M; Prabhakar Joshua T; Mansfield Tyler A; Schultes Neil P
Department of Biology, Indiana University-Purdue University Fort Wayne (IPFW), 2101 East Coliseum Blvd, Fort Wayne, IN 46805-1499, USA.

mourad@ipfw.edu
Journal of experimental botany (England) 2006, 57 (14) p3563-73,
ISSN 0022-0957--Print Journal Code: 9882906
Publishing Model Print-Electronic
Document type: Journal Article; Research Support, Non-U.S. Gov't;
Research Support, U.S. Gov't, Non-P.H.S.
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
A fluoroorotic acid (FOA)-resistant mutant of Arabidopsis thaliana was isolated by screening M2 populations of ethyl methane sulphonate (EMS)-mutagenized Columbia seed. FOA resistance was due to a nuclear recessive gene , for1-1, which locates to a 519 kb region in chromosome 5. Assays of key regulatory enzymes in de novo pyrimidine synthesis (uridine monophosphate synthase) and salvage biochemistry (thymidine kinase) confirmed that FOA resistance in for1-1/for1-1 plants was not due to altered enzymatic activities. Uptake studies using radiolabelled purines, pyrimidines, and [14C]FOA reveal that for1-1/for1-1 plants were specifically defective in the uptake of uracil or uracil-like bases. To confirm such specificity, genetic crosses show that FOR1 is a distinct locus from FUR1 which encodes a deoxyuridine nucleoside transporter. In addition, for1-1/for1-1 plants were restored to FOA sensitivity by transformation with the Escherichia coli uracil transporter gene uraA driven by the cauliflower mosaic virus (CaMV) 35S promoter. Molecular mapping studies reveal that FOR1 does not correspond to loci belonging to any of the six known nucleobase transporter families identified in the Arabidopsis genome. Moreover, FOR1 does not appear to regulate the transcript levels of either uracil transporter-encoding loci At2g03590 or At2g03530. The above results strongly suggest that the for1-1 mutant allele affects a transport mechanism that is specific for the uptake of uracil.

Record Date Created: 20061114
Record Date Completed: 20070227
Date of Electronic Publication: 20060912

4/7/13 (Item 2 from file: 154)
DIALOG(R)File 154:MEDLINE(R)

16589069 PMID: 15932997 Record Identifier: PMC1151845

sacB-5-Fluoroorotic acid-pyrE-based bidirectional selection for integration of unmarked alleles into the chromosome of Rhodobacter capsulatus.

Yano Takahiro; Sanders Carsten; Catalano John; Daldal Fevzi
Johnson Research Foundation, Department of Biochemistry and Biophysics, School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania 19104, USA. yano@mail.med.upenn.edu

Applied and environmental microbiology (United States) Jun 2005, 71 (6) p3014-24, ISSN 0099-2240--Print Journal Code: 7605801
Contract/Grant No.: GM30736; GM; NIGMS NIH HHS United States
Publishing Model Print
Document type: Evaluation Studies; Journal Article; Research Support, N.I.H., Extramural; Research Support, U.S. Gov't, Non-P.H.S.; Research Support, U.S. Gov't, P.H.S.
Languages: ENGLISH
Main Citation Owner: NLM
Other Citation Owner: NLM
Record type: MEDLINE; Completed

The gram-negative, purple nonsulfur, facultative photosynthetic bacterium Rhodobacter capsulatus is a widely used model organism and has well-developed molecular genetics. In particular, interposon mutagenesis using selectable gene cartridges is frequently employed for construction of a variety of chromosomal knockout mutants. However, as the gene cartridges are often derived from antibiotic resistance-conferring genes, their numbers are limited, which restricts the construction of multiple knockout mutants. In this report, sacB-5-fluoroorotic acid (5FOA)--pyrE-based bidirectional selection that facilitates construction of unmarked chromosomal knockout mutations is

described. The R. capsulatus pyrE gene encoding orotate phosphoribosyl transferase, a key enzyme of the de novo pyrimidine nucleotide biosynthesis pathway, was used as an interposon in a genetic background that is auxotrophic for uracil (Ura-) and hence resistant to 5FOA (5FOA(r)). Although Ura+ selection readily yielded chromosomal allele replacements via homologous recombination, selection for 5FOA(r) to replace pyrE with unmarked alleles was inefficient. To improve the latter step, 5FOA(r) selection was combined with sucrose tolerance selection using a suicide plasmid carrying the Bacillus subtilis sacB gene encoding levansucrase that induces lethality upon exposure to 5% (wt/vol) sucrose in the growth medium. Sucrose-tolerant, 5FOA(r) colonies that were obtained carried chromosomal unmarked mutant alleles of the target gene via double crossovers between the resident pyrE-marked and incoming unmarked alleles. The effectiveness of this double selection was proven by seeking insertion and deletion alleles of helC involved in R. capsulatus cytochrome c biogenesis, which illustrated the usefulness of this system as a genetic means for facile construction of R. capsulatus unmarked chromosomal mutants.
Record Date Created: 20050603
Record Date Completed: 20050811

4/7/14 (Item 3 from file: 154)
DIALOG(R)File 154:MEDLINE(R)

11311703 PMID: 7997171
Five Listeria monocytogenes genes preferentially expressed in infected mammalian cells: plcA, purH, purD, pyrE and an arginine ABC transporter gene, arpJ.
Klarsfeld A D; Goossens P L; Cossart P
Unite des Interactions Bacteries-Cellules, CNRS URA 1300, Institut Pasteur, Paris, France.
Molecular microbiology (ENGLAND) Aug 1994, 13 (4) p585-97, ISSN

0950-382X--Print Journal Code: 8712028
Publishing Model Print
Document type: Comparative Study; Journal Article; Research Support,
Non-U.S. Gov't
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Listeria monocytogenes is a bacterial pathogen that multiplies within the cytosol of eukaryotic cells. To identify Listeria genes with preferentially intracellular expression (pic genes), a library of Tn917-lac insertion mutants was screened for transcriptional fusions to lacZ with higher expression inside a macrophage-like cell line than in a rich broth medium. Five pic genes with up to 100-fold induction inside cells were identified. Three of them (purH, purD and pyrE) were involved in nucleotide biosynthesis. One was part of an operon encoding an ABC (ATP-binding cassette) transporter for arginine. The corresponding mutants were not affected in intracellular growth, cell-to-cell spread or virulence, except for the transporter mutant, whose LD50 after intravenous infection of mice was twofold higher than the wild-type. The fifth gene was plcA, a previously identified virulence gene that encodes a phosphatidylinositol-phospholipase C, and is cotranscribed with prfA, a gene encoding a pleiotropic transcriptional activator of known virulence genes. Although plcA expression is known to depend on PrfA, a prfA promoter-lacZ fusion was highly expressed both inside and outside cells. Furthermore, in the presence of cellobiose, a disaccharide recently shown to repress plcA and hly expression, plcA and hly mRNA levels were dramatically reduced without any decrease in the monocistronic prfA mRNA levels. These results demonstrate that virulence gene activation does not depend only on prfA transcript accumulation.
Record Date Created: 19950119
Record Date Completed: 19950119

4/7/15 (Item 1 from file: 155)

07614262 PMID: 6150076

Pyrimidine de novo synthesis during the life cycle of the intraerythrocytic stage of Plasmodium falciparum.

Gero A M; Brown G V; O'Sullivan W J

Journal of parasitology (UNITED STATES) Aug 1984, 70 (4) p536-41,
ISSN 0022-3395--Print Journal Code: 7803124
Publishing Model Print
Document type: Journal Article; Research Support, Non-U.S. Gov't
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

The 6 enzymes involved in de novo synthesis of pyrimidines were measured in Plasmodium falciparum isolated by saponin lysis from RBC's nonsynchronized and synchronized in vitro cultures. The total activities were found to be dependent on the stage of the P. falciparum cycle. In parasites isolated from synchronized cultures, the highest activities for all enzymes were found at about 27 hr after synchronization in the late trophozoite stage, or just before schizont formation. Merozoites and ring forms contained little de novo activity. The first enzyme of the pathway, carbamyl phosphate synthetase (CPS-II) preferentially utilized glutamine. Ammonia was a poor substrate. CPS-II was unstable in the absence of the cryoprotectants, dimethylsulfoxide and glycerol. The apparent Km for MgATP--was 3.8 +/- 0.7 mM and the enzyme in all morphological forms of P. falciparum (ring, mature trophozoites and schizonts) was inhibited by UTP. The activity of the fourth enzyme of the pathway, dihydroorotate dehydrogenase, appeared to be linked to the cell's respiratory chain; inhibitors of mammalian electron transport such as cyanide, amytal, antimycin A, thenoyltrifluoroacetone and ubiquinone analogs also inhibited the P. falciparum enzyme. The demonstration of the variation of activity of

the pyrimidine enzymes correlates with the increased synthesis of
nucleic acids in the late trophozoite stage. These observations provide a basis for the testing of the effectiveness of pyrimidine analogs
as potential antimetabolites against various forms of the parasite.
Record Date Created: 19850109
Record Date Completed: 19850109

4/7/16 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

05709916 PMID: 280143
Antiviral action and selectivity of 6-azauridine.
Rada B; Dragun M
Annals of the New York Academy of Sciences (UNITED STATES) Mar 4 1977,
284 p410-7, ISSN 0077-8923--Print Journal Code: 7506858
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
6-Azauridine (AzUrd) is a broad-spectrum antimetabolite that inhibits
both DNA and RNA virus multiplication. Prior work indicated that several AzUrd-sensitive viruses induced an increase in the level of uridine
kinase, and this might explain the selective activity of AzUrd on such
viruses. Present studies compared AzUrd sensitive and resistant viruses
with respect to their orotic acid pathways by labeling cells with
[14C]-orotic acid during the latent period of viral infection. No
differences were detected by this method with either vaccinia, Newcastle
disease, or vesicular stomatitis viruses. AzUrd inhibits transport of orotic acid into the cell by 30%, while incorporation of orotic acid into cellular RNA is inhibited by 50% (taking into consideration the 30%
already noted) when the highest concentration of antimetabolite is used.
This suggests that, in addition to blocking orotidylic acid decarboxylase,
AzUrd may act on some other site (sites) of action in the inhibition of
virus multiplication.
Record Date Created: 19781227

Record Date Completed: 19781227

4/7/17 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

05100256 PMID: 171022 Record Identifier: PMC1859231
Anabolic and androgenic effects of methandrostenolone ("Nerobol") during
systematic physical activity in rats.
Rogozkin V
British journal of sports medicine (ENGLAND) Jul 1975, 9 (2) p65-9,
ISSN 0306-3674--Print Journal Code: 0432520
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Other Citation Owner: NLM
Record type: MEDLINE; Completed
Record Date Created: 19760129
Record Date Completed: 19760129

4/7/18 (Item 1 from file: 370)
DIALOG(R)File 370:Science

00501372 (USE 9 FOR FULLTEXT)
A Membrane Network for Nutrient Import in Red Cells Infected with the Malaria Parasite
Lauer, Sabine A.; Rathod, Pradipsinh K.; Ghori, Nafisa; Haldar, Kasturi
S. A. Lauer, N. Ghori, K. Haldar, Department of Microbiology and Immunology, Stanford University School of Medicine, Stanford, CA 94305-5402, USA. ; P. K. Rathod, Department of Biology, Institute for Biomolecular Studies, The Catholic University of America, Washington, DC 20064, USA.
Science Vol. 276 5315 pp. 1122
Publication Date: 5-16-1997 (970516) Publication Year: 1997
Document Type: Journal ISSN: 0036-8075
Language: English
Section Heading: Reports
Word Count: 2537

Abstract: The human malaria parasite Plasmodium falciparum exports an interconnected network of tubovesicular membranes (the TVM) that extends

from the parasite's vacuolar membrane to the periphery of the red cell.
Here it is shown that extracellular solutes such as Lucifer yellow enter
the TVM and are delivered to the parasite. Blocking the assembly of the
network blocked the delivery of exogenous Lucifer yellow, nucleosides, and
amino acids to the parasite without inhibiting secretion of plasmodial
proteins. These data suggest that the TVM is a transport network that
allows nutrients efficient access to the parasite and could be used to
deliver antimalarial drugs directly into the parasite.

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163 ;
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3. Deitsch, K. W., Wellems, T. E., Mol. Biochem. Parasitol., 76 1996,
1 ;
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92 1995, 9181 PPMP-treated cells were prepared by incubating purified
schizonts (36 to 48 hours old) with a 20-fold excess of uninfected red
cells for 12 to 16 hours in RPMI 1640 medium containing 10% human serum
and 5 (mu) M PPMP. This treatment produced a new generation of
PPMP-treated infected red cells that were arrested in the TVM from the
onset of ring development. Any residual schizonts were removed by a
second Percoll gradient. ;
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10. Haldar, K., Uyetake, L., Mol. Biochem. Parasitol., 50 1992, 161
;
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83 ;
12. To examine the uptake of LY after removal of PPMP, we washed cells in

culture medium, allowed them to mature under normal growth conditions for 24 hours, and subsequently incubated them with LY (B9) . To examine the effect of PPMP on the LY channel or transporter activity in the infected red cell membrane, we incubated trophozoite-and schizont-infected red cells with LY (B9) in the presence or absence of 5 (mu) M PPMP. The dye could be detected in both treated and control cells, indicating that PPMP does not block the channel or transporter activity at the infected red cell membrane. ;

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14. PPMP-treated and control cells were adjusted to 2 x 10.sup(7) cells/ml and incubated with a 1 (mu) Ci/ml concentration of [.sup(3)H]adenosine (34.5 Ci/mmol at a final concentration 29 nM) or [.sup(3)H]thymidine (2 Ci/mmol at a final concentration of 500 nM) in phosphate-buffered saline (PBS). Because of its low specific activity, the extracellular concentration of [.sup(3)H]thymidine was 16 times as high as that of adenosine. For the accumulation of orotic acid, infected erythrocytes treated with 5 (mu) M PPMP (10 to 20% parasitemia) were washed free of serum and adjusted to 5 x 10.sup(9) cells/ml in RPMI 1640. Transport was initiated by mixing equal volumes (330 (mu) l) of the cell suspension and [.sup(3)H]orotic acid at a concentration of 0.26 (mu) Ci/ml (13 Ci/mmol at a final concentration of 10 nM). For the accumulation of glutamate, control and PPMP-treated infected red cells were adjusted to 2.5 x 10.sup(8) cells/ml and incubated with [.sup(3)H]glutamate at a concentration of 1 (mu) Ci/ml (53 Ci/mmol at a final concentration of 19 nM) in PBS. For all accumulation assays, the cells were collected by centrifugation through a layer of dibutylphthalate, and the cell pellets lysed, bleached, neutralized, and counted. PPMP treatment had no effect on the uptake of any radiolabeled compound into uninfected red cells. The incorporation of adenosine and

orotic acid into nucleic acids was measured as follows. Infected red cells treated with PPMP (5 (mu) M) for 12 hours and their corresponding controls were seeded into microtiter plates at 2% hematocrit and 5% parasitemia. The cells were incubated in RPMI 1640 containing 10% human serum and 0.86 (mu) Ci/well (11 nM) of [.sup(3)H]adenosine or 0.125 (mu) Ci/well (48 nM) of [.sup(3)H]orotic acid in the presence or absence of (5 (mu) M) PPMP for 24 hours at 37.Deg.C. All incorporation assays were carried out in the absence of NBMPR. For glutamate, infected red cells treated for 12 hours with PPMP (5 (mu) M) and their corresponding controls were incubated for 24 hours at 37.Deg.C in RPMI 1640 lacking glutamate and supplemented with 2% human serum and [.sup(3)H]glutamic acid (20 (mu) Ci/ml, 377 nM). ;

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19. Determination of the IC.inf(50) of 5-FO in TVM-arrested cells by hypoxanthine incorporation was carried out by plating infected red cells in microtiter dishes at 1% hematocrit and 1% parasitemia. [.sup(3)H]Hypoxanthine (0.5 (mu) Ci/well) was added, and the cells were incubated for another 24 hours and then harvested on glass fiber filters (B8) . Because PPMP reduces the accumulation of exogenous [.sup(3)H]hypoxanthine (but does not inhibit the parasite's machinery for nucleic acid synthesis), a separate IC.inf(50) plot for 5-FO was determined at 0, 0.03, 0.3, and 3.3 (mu) M PPMP. At 0 to 0.3 (mu) M PPMP, the IC.inf(50) was 6.0 x 10.sup(-8) M. At 3.3 (mu) M PPMP (which corresponds to complete inhibition of the SSS and the TVM), the IC.inf(50) of 5-FO was 7.5 x 10.sup(-7) M. As expected, saponin abrogated the effects on nucleoside uptake. Determination of the IC.inf(50) in TVM-arrested cells by Giemsa staining was carried out with infected red cells at 2% parasitemia and 5% hematocrit. Cells were subsequently washed free of both PPMP and 5-FO and the parasites were allowed to grow in RPMI 1640 for another 48 hours, at which time

parasitemia was determined by Giemsa staining. The IC.inf(50) of doxycline (in the absence or presence of PPMP) was 1 x 10.sup(-6) M.
These experiments were carried out as those described for 5-FO. ;
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25. We thank W. l. Li, J. McBride, D. Taylor, and R. Coppel for antibodies to the 45-kD cleft protein, Exp1, HRP1, HRP2, and PfEMP2; A. A. Holder for a knob-forming FCB strain of P. falciparum; R. R. Kopito and S. Mayor for comments on the manuscript; and S. Palmieri and J. VanWye for assistance with the Delta Vision microscope and work station. Supported by NIH grants (AI26670 and AI39071 to K.H., AI26912 and AI01112 to P.K.R.), the MacArthur Foundation (S.L.), and Burroughs Wellcome Fund Awards (New Investigator and New Initiatives in Malaria to K.H.).

4/7/19 (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

145477770 CA: 145(24)477770v PATENT
Facilitated transport of bisphosphonates by vitamin C, and use of bisphosphonate-ascorbic acid conjugates for treatment of joint and bone diseases
INVENTOR(AUTHOR): Kraus, Virginia Byers; McNulty, Amy Lynn; Toone, Eric John
LOCATION: USA
ASSIGNEE: Duke University
PATENT: PCT International ; WO 2006116057 A2 DATE: 20061102
APPLICATION: WO 2006US15051 (20060421) *US 2005PV673527 (20050421)
PAGES: 65pp. CODEN: PIXXD2 LANGUAGE: English
PATENT CLASSIFICATIONS:
IPCR/8 + Level Value Position Status Version Action Source Office:
C07F-0009/58 A I F B 20060101 H US
DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BW; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB; GD;

GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KM; KN; KP; KR; KZ;
LC; LK;
LR; LS; LT; LU; LV; LY; MA; MD; MG; MK; MN; MW; MX; MZ; NA; NG; NI;
NO; NZ;
OM; PG; PH; PL; PT; RO; RU; SC; SD; SE; SG; SK; SL; SM; SY; TJ; TM;
TN; TR;
TT; TZ; UA; UG; US; UZ; VC; VN; YU; ZA DESIGNATED REGIONAL: AT; BE;
BG; CH
; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IS; IT; LT; LU; LV;
MC;
NL; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ;
GW; ML;
MR; NE; SN; TD; TG; BW; GH; GM; KE; LS; MW; MZ; NA; SD; SL; SZ; TZ;
UG; ZM;
ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM

SECTION:

CA263005 Pharmaceuticals

CA201XXX Pharmacology

CA213XXX Mammalian Biochemistry

IDENTIFIERS: bisphosphonate ascorbic acid conjugate cartilage uptake gastrointestinal absorption, joint bone disease treatment bisphosphonate ascorbic acid conjugate

DESCRIPTORS:

Bone,disease...

abnormally increased bone turnover; facilitated transport of bisphosphonates by vitamin C, and use of bisphosphonate-ascorbic acid conjugates for treatment of joint and bone diseases

Disease,animal...

arthropathy; facilitated transport of bisphosphonates by vitamin C, and use of bisphosphonate-ascorbic acid conjugates for treatment of joint and bone diseases

Peptides,biological studies... Glycosaminoglycans,biological studies...
Imaging agents... Nucleic acids... Enzyme inhibitors... Antitumor agents...

conjugates with ascorbic acids or analogs; facilitated transport of bisphosphonates by vitamin C, and use of bisphosphonate-ascorbic acid conjugates for treatment of joint and bone diseases

Cartilage,disease... Tendon... Synovial membrane,disease...

degeneration; facilitated transport of bisphosphonates by vitamin C, and use of bisphosphonate-ascorbic acid conjugates for treatment of joint and bone diseases

Epithelium...

digestive tract, transport across; facilitated transport of bisphosphonates by vitamin C, and use of bisphosphonate-ascorbic acid

conjugates for treatment of joint and bone diseases
Joint,anatomical...
disease, degeneration; facilitated transport of bisphosphonates by vitamin C, and use of bisphosphonate-ascorbic acid conjugates for treatment of joint and bone diseases
Joint,anatomical...
disease; facilitated transport of bisphosphonates by vitamin C, and use of bisphosphonate-ascorbic acid conjugates for treatment of joint and bone diseases
Biological transport...
drug; facilitated transport of bisphosphonates by vitamin C, and use of bisphosphonate-ascorbic acid conjugates for treatment of joint and bone diseases
Calcification...
ectopic; facilitated transport of bisphosphonates by vitamin C, and use of bisphosphonate-ascorbic acid conjugates for treatment of joint and bone diseases
Joint,anatomical... Cartilage... Synovial membrane...
enhancing joint tissue synthesis; facilitated transport of bisphosphonates by vitamin C, and use of bisphosphonate-ascorbic acid conjugates for treatment of joint and bone diseases
Digestive tract...
epithelium, transport across; facilitated transport of bisphosphonates by vitamin C, and use of bisphosphonate-ascorbic acid conjugates for treatment of joint and bone diseases
Human... Diphosphonates... Osteoporosis... Antiosteoporotic agents... Gout
... Osteoarthritis... Rheumatoid arthritis... Antiarthritics...
Periodontium,disease... Multiple myeloma...
facilitated transport of bisphosphonates by vitamin C, and use of bisphosphonate-ascorbic acid conjugates for treatment of joint and bone diseases
Bone,disease...
fracture; facilitated transport of bisphosphonates by vitamin C, and use of bisphosphonate-ascorbic acid conjugates for treatment of joint and bone diseases
Transport proteins...
GLUT-1 (glucose transporter 1), GLUTs-mediated DHA transport in human chondrocytes is regulated by hypoxia; facilitated transport of

bisphosphonates by vitamin C, and use of bisphosphonate-ascorbic ac
Transport proteins...
GLUT-3 (glucose transporter 3), GLUTs-mediated DHA transport in human
chondrocytes is regulated by hypoxia; facilitated transport of
bisphosphonates by vitamin C, and use of bisphosphonate-ascorbic ac
Hypoxia,animal...
GLUTs-mediated DHA transport in human chondrocytes is regulated by
hypoxia; facilitated transport of bisphosphonates by vitamin C, and use
of bisphosphonate-ascorbic acid conjugates for treatment of j
Neoplasm...
humoral hypercalcemia of malignancy; facilitated transport of
bisphosphonates by vitamin C, and use of bisphosphonate-ascorbic acid
conjugates for treatment of joint and bone diseases
Drug delivery systems...
injections, intraarticular; facilitated transport of bisphosphonates by
vitamin C, and use of bisphosphonate-ascorbic acid conjugates for
treatment of joint and bone diseases
Disease,animal...
joint degeneration; facilitated transport of bisphosphonates by vitamin
C, and use of bisphosphonate-ascorbic acid conjugates for treatment of
joint and bone diseases
Bone,neoplasm...
metastasis; facilitated transport of bisphosphonates by vitamin C, and
use of bisphosphonate-ascorbic acid conjugates for treatment of joint
and bone diseases
Stereochemistry...
of ascorbic acid by chondrocytes; facilitated transport of
bisphosphonates by vitamin C, and use of bisphosphonate-ascorbic acid
conjugates for treatment of joint and bone diseases
Bone,disease...
Paget's; facilitated transport of bisphosphonates by vitamin C, and use
of bisphosphonate-ascorbic acid conjugates for treatment of joint and
bone diseases
Transport proteins...
SVCT2, chondrocyte transport of vitamin C mediated by; facilitated
transport of bisphosphonates by vitamin C, and use of
bisphosphonate-ascorbic acid conjugates for treatment of joint and bone
disease

Chondrocyte...
SVCT2-mediated transport of vitamin C into chondrocytes; facilitated
transport of bisphosphonates by vitamin C, and use of
bisphosphonate-ascorbic acid conjugates for treatment of joint and bone
disea
Tooth,disease...
tooth loss; facilitated transport of bisphosphonates by vitamin C, and
use of bisphosphonate-ascorbic acid conjugates for treatment of joint
and bone diseases
Biological transport...
uptake, carrier-mediated, SVCT2-mediated transport of vitamin C into
chondrocytes; facilitated transport of bisphosphonates by vitamin C,
and use of bisphosphonate-ascorbic acid conjugates for treatme
CAS REGISTRY NUMBERS:
50-81-7 biological studies, facilitated transport of bisphosphonates by
vitamin C, and use of bisphosphonate-ascorbic acid conjugates for
treatment of joint and bone diseases
7440-23-5 biological studies, vitamin C transport dependence on;
facilitated transport of bisphosphonates by vitamin C, and use of
bisphosphonate-ascorbic acid conjugates for treatment of joint and bone
diseases
50-81-7D conjugates with bisphosphonates, facilitated transport of
bisphosphonates by vitamin C, and use of bisphosphonate-ascorbic acid
conjugates for treatment of joint and bone diseases
913824-02-9 facilitated transport of bisphosphonates by vitamin C, and use
of bisphosphonate-ascorbic acid conjugates for treatment of joint and
bone diseases
490-83-5 GLUTs-mediated DHA transport in human chondrocytes is regulated
by hypoxia; facilitated transport of bisphosphonates by vitamin C, and
use of bisphosphonate-ascorbic acid conjugates for treatment of joint
and bone diseases

4/7/20 (Item 2 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

144206477 CA: 144(12)206477m JOURNAL

Protein and cDNA sequences of a novel Lactococcus lactis orotate transporter and use as selection markers
LOCATION: Den.
JOURNAL: IP.com J. (IP.com Journal) DATE: 2005 VOLUME: 5 NUMBER: 6A
PAGES: 23 CODEN: IJPOBX ISSN: 1533-0001 ISSN: IPCOM000124929D
LANGUAGE: English PUBLISHER: IP.com, Inc.
SECTION:
CA203001 Biochemical Genetics
CA206XXX General Biochemistry
CA209XXX Biochemical Methods
CA210XXX MICROBIAL, ALGAL, AND FUNGAL BIOCHEMISTRY
IDENTIFIERS: sequence Lactococcus orotate transport protein gene selection marker
DESCRIPTORS:
Escherichia coli... Bacillus subtilis...
expression host; protein and cDNA sequences of novel Lactococcus lactis
orotate transporter and use as selection markers
Transport proteins...
orotate transporter; protein and cDNA sequences of novel Lactococcus
lactis orotate transporter and use as selection markers
Lactococcus lactis... Protein sequences... cDNA sequences... Molecular cloning... Selection markers...
protein and cDNA sequences of novel Lactococcus lactis orotate transporter and use as selection markers
Gene,animal...
ysbC, for orotate transporter; protein and cDNA sequences of novel Lactococcus lactis orotate transporter and use as selection markers
CAS REGISTRY NUMBERS:
875602-72-5P amino acid sequence; protein and cDNA sequences of novel Lactococcus lactis orotate transporter and use as selection markers
65-86-1D analog, protein and cDNA sequences of novel Lactococcus lactis
orotate transporter and use as selection markers
875602-71-4P nucleotide sequence; protein and cDNA sequences of a novel
Lactococcus lactis orotate transporter and use as selection markers
703-95-7 protein and cDNA sequences of novel Lactococcus lactis orotate
transporter and use as selection markers

4/7/21 (Item 3 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

143242974 CA: 143(14)242974j PATENT

Protein and cDNA sequences of a novel Lactococcus lactis orotate transporter and use as selection markers
INVENTOR(AUTHOR): Martinussen, Jan; Defoor, Els Marie Celine
LOCATION: Den.
ASSIGNEE: Novozymes A/S
PATENT: PCT International ; WO 200578106 A1 DATE: 20050825
APPLICATION: WO 2005DK92 (20050211) *DK 2004227 (20040213)
PAGES: 58 pp. CODEN: PIXXD2 LANGUAGE: English
PATENT CLASSIFICATIONS:
CLASS: C12N-015/65A; C12N-001/21B; C12N-015/31B; C12N-015/64B; C12N-015/70B; C12N-015/74B; C12N-015/75B
DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BW; BY;
BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB; GD;
GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS;
LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MZ; NA; NI; NO; NZ; OM; PG; PH; PL;
PT; RO; RU; SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; US;
UZ; VC; VN; YU; ZA; ZM; ZW DESIGNATED REGIONAL: BW; GH; GM; KE; LS; MW; MZ
; NA; SD; SL; SZ; TZ; UG; ZM; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; AT;
BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IS; IT; LT; LU;
MC; NL; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW;
ML; MR; NE; SN; TD; TG
SECTION:
CA203001 Biochemical Genetics
CA206XXX General Biochemistry
CA209XXX Biochemical Methods
CA210XXX MICROBIAL, ALGAL, AND FUNGAL BIOCHEMISTRY
IDENTIFIERS: sequence Lactococcus orotate transport protein gene selection marker
DESCRIPTORS:
Microorganism... Eubacteria... Firmicutes... Lactobacillus... Bacillus(bacterium genus)... Escherichia...
as expression host; protein and cDNA sequences of novel Lactococcus
lactis orotate transporter and use as selection markers
Gene,animal...
for orotate transporter; protein and cDNA sequences of novel
Lactococcus lactis orotate transporter and use as selection markers
Transport proteins...
orotate; protein and cDNA sequences of novel Lactococcus lactis orotate
transporter and use as selection markers
Lactococcus lactis... Protein sequences... cDNA sequences... Molecular

cloning... Selection markers... Promoter(genetic element)... Genetic vectors... Plasmid vectors... Mutation...
protein and cDNA sequences of novel Lactococcus lactis orotate transporter and use as selection markers
Gene,microbial...
pyrD; protein and cDNA sequences of novel Lactococcus lactis orotate transporter and use as selection markers
Gene,microbial...
pyrDa; protein and cDNA sequences of novel Lactococcus lactis orotate transporter and use as selection markers
Gene,microbial...
pyrDb; protein and cDNA sequences of novel Lactococcus lactis orotate transporter and use as selection markers
Gene,microbial...
pyrK; protein and cDNA sequences of novel Lactococcus lactis orotate transporter and use as selection markers
CAS REGISTRY NUMBERS:
863466-31-3P amino acid sequence; protein and cDNA sequences of novel Lactococcus lactis orotate transporter and use as selection markers
65-86-1D analog, protein and cDNA sequences of novel Lactococcus lactis orotate transporter and use as selection markers
66-22-8 biological studies, protein and cDNA sequences of novel Lactococcus lactis orotate transporter and use as selection markers
863466-30-2P nucleotide sequence; ;protein and cDNA sequences of novel Lactococcus lactis orotate transporter and use as selection markers
703-95-7 289-95-2 155-54-4 protein and cDNA sequences of novel Lactococcus lactis orotate transporter and use as selection markers
863467-19-0 863467-20-3 863467-21-4 863467-22-5 863467-23-6
863467-24-7 863467-25-8 863467-26-9 863467-27-0 863467-28-1
863467-29-2 863467-30-5 863467-31-6 863467-32-7 863467-33-8
863467-34-9 863467-35-0 863467-36-1 863467-37-2 863467-38-3
unclaimed nucleotide sequence; protein and cDNA sequences of a novel Lactococcus lactis orotate transporter and use as selection markers

4/7/22 (Item 4 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

141406805 CA: 141(25)406805s PATENT

Cloning of orotate-phosphoribosyl transferase gene Ura5 from P. pastoris
and use thereof as a new selection marker for stable genetic integration
in yeast
INVENTOR(AUTHOR): Nett, Juergen H.
LOCATION: USA
PATENT: U.S. Pat. Appl. Publ. ; US 20040229306 A1 DATE: 20041118
APPLICATION: US 454125 (20030603) *US PV471435 (20030516)
PAGES: 38 pp. CODEN: USXXCO LANGUAGE: English
PATENT CLASSIFICATIONS:
CLASS: 435069100; C12N-009/10A; C12N-001/18B; C07H-021/04B; C12N-015/74B
SECTION:
CA203003 Biochemical Genetics
CA207XXX Enzymes
CA210XXX MICROBIAL, ALGAL, AND FUNGAL BIOCHEMISTRY
IDENTIFIERS: sequence orotate phosphoribosyltransferase gene URA5 Pichia
transformation selection marker, Pichia SEC65 SCS7 gene fragment sequence
DESCRIPTORS:
Protein sequences... DNA sequences... Pichia pastoris... Transformation,genetic... Cytokines... Blood-coagulation factors... Insulin-like growth factor-binding proteins... α-Fetoproteins... Antibodies and Immunoglobulins... Molecular cloning...
cloning of orotate-phosphoribosyl transferase gene Ura5 from P. pastoris and use thereof as a new selection marker for stable genetic
integration in yeast
Repetitive DNA...
direct, flanking Ura3 or Ura5 gene; cloning of orotate-phosphoribosyl
transferase gene Ura5 from P. pastoris and use thereof as a new selection marker for stable genetic integration in yeast
Glycosylation...
enzyme, disruption of; cloning of orotate-phosphoribosyl transferase
gene Ura5 from P. pastoris and use thereof as a new selection marker
for stable genetic integration in yeast
Antibodies and Immunoglobulins...
fragments, antigen-binding; cloning of orotate-phosphoribosyl transferase gene Ura5 from P. pastoris and use thereof as a new selection marker for stable genetic integration in yeast
Gene targeting...
gene knock-out; cloning of orotate-phosphoribosyl transferase gene Ura5
from P. pastoris and use thereof as a new selection marker for stable
genetic integration in yeast
Proteins...

Ura5 from P. pastoris and use thereof as a new selection marker for
stable genetic integration in yeast
Fusion proteins(chimeric proteins)...
of orotate phosphoribosyltransferase and SEC65p and SCS7p;
cloning of
orotate-phosphoribosyl transferase gene Ura5 from P. pastoris and
use
thereof as a new selection marker for stable genetic integra
Enzymes,processes...
Phosphomannosidase, gene disruption; cloning of
orotate-phosphoribosyl
transferase gene Ura5 from P. pastoris and use thereof as a new
selection marker for stable genetic integration in yeast
Plasmid vectors...
pJN266, disruption vector contg. Ura3; cloning of
orotate-phosphoribosyl transferase gene Ura5 from P. pastoris and
use
thereof as a new selection marker for stable genetic integration
in
yeast
Plasmid vectors...
pJN395, disruption vector contg. Ura5; cloning of
orotate-phosphoribosyl transferase gene Ura5 from P. pastoris and
use
thereof as a new selection marker for stable genetic integration
in
yeast
Plasmid vectors...
pJN396, disruption vector contg. Ura5; cloning of
orotate-phosphoribosyl transferase gene Ura5 from P. pastoris and
use
thereof as a new selection marker for stable genetic integration
in
yeast
Plasmid vectors...
pJN398, disruption vector contg. Ura5; cloning of
orotate-phosphoribosyl transferase gene Ura5 from P. pastoris and
use
thereof as a new selection marker for stable genetic integration
in
yeast
Plasmid vectors...
pJN407, disruption vector contg. Ura5 and UDP-GlcNAc transporter
gene;
cloning of orotate-phosphoribosyl transferase gene Ura5 from P.
pastoris and use thereof as a new selection marker for stable gen
Pichia pastoris... Pichia finlandica... Pichia trehalophila... Pichia
kodamae... Pichia membranaefaciens... Pichia opuntiae... Pichia
thermotolerans... Pichia salictaria... Pichia quercuum... Pichia
pijperi...
Yamadazyma stipite... Pichia methanolica... Pichia... Saccharomyces

cerevisiae... Kluyveromyces lactis... Pichia angusta...
Kluyveromyces...
Candida albicans... Aspergillus nidulans... Aspergillus niger...
Aspergillus oryzae... Trichoderma reesei... Chrysosporium
lucknowense...
Fusarium... Fusarium graminearum... Fusarium venenatum... Neurospora
crassa
...
    recombinant host; cloning of orotate-phosphoribosyl transferase
gene
    Ura5 from P. pastoris and use thereof as a new selection marker
for
    stable genetic integration in yeast
Gene,microbial...
    SCS7; cloning of orotate-phosphoribosyl transferase gene Ura5
from P.
    pastoris and use thereof as a new selection marker for stable
genetic
    integration in yeast
Gene,microbial...
    SEC65; cloning of orotate-phosphoribosyl transferase gene Ura5
from P.
    pastoris and use thereof as a new selection marker for stable
genetic
    integration in yeast
Proteins...
    therapeutic; cloning of orotate-phosphoribosyl transferase gene
Ura5
    from P. pastoris and use thereof as a new selection marker for
stable
    genetic integration in yeast
Transport proteins...
    UDP-N-acetylglucosamine transporting, gene for; cloning of
    orotate-phosphoribosyl transferase gene Ura5 from P. pastoris and
use
    thereof as a new selection marker for stable genetic integration
in yea
Transport proteins...
    UDP-N-acetylglucosamine-transporting, gene disruption; cloning of
    orotate-phosphoribosyl transferase gene Ura5 from P. pastoris and
use
    thereof as a new selection marker for stable genetic integration
Gene,microbial...
    URA3; cloning of orotate-phosphoribosyl transferase gene Ura5
from P.
    pastoris and use thereof as a new selection marker for stable
genetic
    integration in yeast
Gene,microbial...
    URA5; cloning of orotate-phosphoribosyl transferase gene Ura5
from P.
    pastoris and use thereof as a new selection marker for stable
genetic

integration in yeast
Annexins...
V, fusion product; cloning of orotate-phosphoribosyl transferase gene
Ura5 from P. pastoris and use thereof as a new selection marker for
stable genetic integration in yeast
CAS REGISTRY NUMBERS:
791704-69-3 791704-71-7 791704-73-9 amino acid sequence; cloning of
orotate-phosphoribosyl transferase gene Ura5 from P. pastoris and use
thereof as a new selection marker for stable genetic integration in
yeast
66-22-8 biological studies, auxotrophy for; cloning of
orotate-phosphoribosyl transferase gene Ura5 from P. pastoris and use
thereof as a new selection marker for stable genetic integration in
yeast
11096-26-7P 9039-53-6P 97501-92-3P 9035-81-8P 62229-50-9P
9034-39-3P
86090-08-6P 244019-42-9P 205944-50-9P 9041-92-3P 9025-64-3P
cloning of orotate-phosphoribosyl transferase gene Ura5 from P.
pastoris and use thereof as a new selection marker for stable genetic
integration in yeast
9032-92-2 37211-66-8 9013-05-2 9055-06-5 9054-49-3 9031-68-9
321976-25-4 gene disruption; cloning of orotate-phosphoribosyl
transferase gene Ura5 from P. pastoris and use thereof as a new
selection marker for stable genetic integration in yeast
9030-25-5 gene Ura5; cloning of orotate-phosphoribosyl transferase
gene
Ura5 from P. pastoris and use thereof as a new selection marker for
stable genetic integration in yeast
9001-91-6P kringle domain, of human; cloning of orotate-phosphoribosyl
transferase gene Ura5 from P. pastoris and use thereof as a new
selection marker for stable genetic integration in yeast
791704-67-1 791704-68-2 791704-70-6 791704-72-8 nucleotide sequence;
cloning of orotate-phosphoribosyl transferase gene Ura5 from P.
pastoris and use thereof as a new selection marker for stable genetic
integration in yeast
703-95-7 resistance to; cloning of orotate-phosphoribosyl transferase
gene
Ura5 from P. pastoris and use thereof as a new selection marker for
stable genetic integration in yeast
791705-65-2 791705-66-3 791705-67-4 791705-68-5 791705-69-6

791705-70-9 791705-71-0 791705-72-1 791705-73-2 791705-74-3
791705-75-4 791705-76-5 791705-77-6 791705-78-7 791705-79-8
791705-80-1 791705-81-2 791705-82-3 791705-83-4 791705-84-5
791705-85-6 791705-86-7 791705-87-8 791705-88-9 791705-89-0
unclaimed nucleotide sequence; cloning of orotate-phosphoribosyl transferase gene Ura5 from P. pastoris and use thereof as a new selection marker for stable genetic integration in yeast
791705-50-5 791705-51-6 791705-52-7 791705-53-8 791705-54-9
791705-55-0 791705-56-1 791705-57-2 791705-58-3 791705-59-4
791705-60-7 791705-61-8 791705-62-9 791705-63-0 791705-64-1
unclaimed protein sequence; cloning of orotate-phosphoribosyl transferase gene Ura5 from P. pastoris and use thereof as a new selection marker for stable genetic integration in yeast

4/7/23 (Item 5 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

100134444 CA: 100(17)134444q TECHNICAL REPORT
Effect of some derivatives of pyrimidine and purine on RNA transfer from
hepatocyte nuclei in a cell-free system
AUTHOR(S): Zhemkova, L. N.; Porollo, V. I.; Nesterova, S. M.; Komar, V.
E.; Khanson, K. P.
LOCATION: Tsentr. Nauchno-Issled. Rentgeno-Radiol. Inst., Leningrad, USSR
JOURNAL: Deposited Doc. DATE: 1982 NUMBER: VINITI 541-83 PAGES: 16 pp.
CODEN: D8DEP2 LANGUAGE: Russian AVAIL: VINITI
SECTION:
CA106001 General Biochemistry
IDENTIFIERS: RNA transport liver regeneration stimulator, kinetin liver
regeneration RNA transport, orotate liver regeneration RNA transport,
methyluracil liver regeneration RNA transport
DESCRIPTORS:
Regeneration,biological...
of liver, RNA efflux from hepatocyte nuclei in, kinetin and potassium
orotate effect on
Biological transport,efflux...
of RNA, from hepatocyte nuclei, kinetin and potassium orotate effect on
Cell nucleus...
RNA transfer from, kinetin and potassium orotate stimulation of,
regeneration in relation to
Liver,hepatocyte,metabolism...
RNA transfer from nuclei of, kinetin and potassium orotate stimulation

of, regeneration in relation to
Ribonucleic acids...
transfer of, from hepatocyte nuclei, kinetin and potassium orotate
effect on
CAS REGISTRY NUMBERS:
626-48-2 liver regeneration stimulation by, RNA transport in
relation to
525-79-1 24598-73-0 RNA efflux from nuclei enhancement by, liver
regeneration in relation to

4/7/24 (Item 6 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

98069606 CA: 98(9)69606t JOURNAL
Serum-stimulated 3H-orotic acid incorporation into RNA by hepatocyte
primary cultures
AUTHOR(S): Fugassa, E.; Gallo, G.; Voci, A.; Cordone, A.
LOCATION: Ist. Fisiol. Gen., Univ. Genova, 16132, Genoa, Italy
JOURNAL: IRCS Med. Sci.: Libr. Compend. DATE: 1982 VOLUME: 10
NUMBER: 11 PAGES: 925-6 CODEN: IRLCDZ ISSN: 0305-6651 LANGUAGE:
English
SECTION:
CA113006 Mammalian Biochemistry
IDENTIFIERS: hepatocyte RNA formation serum stimulation, tissue
culture
hepatocyte serum
DESCRIPTORS:
Embryo,fetus... Newborn...
blood serum of, RNA formation by hepatocyte in culture
stimulation by
Ribonucleic acid formation...
by hepatocyte, in culture, blood serum stimulation of
Biological transport...
of orotic acid, by hepatocyte in culture, blood serum stimulation
of
Animal tissue culture...
RNA formation by hepatocyte in, blood serum stimulation of
Blood serum...
RNA formation by hepatocytes in culture stimulation by
Liver,hepatocyte,metabolism...
RNA formation by, in culture, blood serum stimulation of
CAS REGISTRY NUMBERS:
65-86-1 transport of and RNA formation from, by hepatocytes in
culture,
blood serum stimulation of

4/7/25 (Item 7 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

91205781 CA: 91(25)205781f JOURNAL
Study of the effect of some purine and pyrimidine derivatives on the transport of RNA from hepatocyte nuclei in a cell free system
AUTHOR(S): Zhemkova, L. N.; Nesterova, S. M.; Porollo, V. I.
LOCATION: USSR
JOURNAL: Farmakol. Regulyatsiya Regeneratorn. Protsessov., Ioshkar-Ola
DATE: 1979 PAGES: 327-8 CODEN: D6JOUJ LANGUAGE: Russian
CITATION:
Ref. Zh., Biol. Khim. 1979, Abstr. No. 18Ch423
SECTION:
CA006001 General Biochemistry
IDENTIFIERS: RNA transport nucleus purine pyrimidine, hepatocyte nucleus
RNA transport
DESCRIPTORS:
Biological transport...
of RNA, from hepatocyte nuclei, methyuracil and orotate effect on
Liver,hepatocyte,metabolism...
RNA transport from nucleus of, methyluracil and orotate effect on,
tissue proliferation in relation to
Cell nucleus...
RNA transport from, of hepatocyte, methyluracil and orotate effect on
Ribonucleic acids...
transport of, from hepatocyte nuclei, methyluracil and orotate effect
on
CAS REGISTRY NUMBERS:
24598-73-0 27942-00-3 RNA transport from hepatocyte nuclei response to

4/7/26 (Item 8 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

79143569 CA: 79(25)143569j JOURNAL
Site of action of 5-fluoroorotic acid on the maturation of mouse liver
ribonucleic acids
AUTHOR(S): Hadzhiolova, K. V.; Golovinski, E. V.; Hadjiolov, A. A.
LOCATION: Inst. Biochem., Sofia, Bulg.
JOURNAL: Biochim. Biophys. Acta DATE: 1973 VOLUME: 319 NUMBER: 3
PAGES: 373-82 CODEN: BBACAQ LANGUAGE: English
SECTION:
CA906001 General Biochemistry
CA901XXX Pharmacodynamics
IDENTIFIERS: RNA formation inhibition fluoroorotate, ribosomal RNA maturation fluoroorotate
DESCRIPTORS:

```
Ribonucleic acids...
    formation of, by liver, fluoroorotic acid effect on
Ribonucleic acids,ribosomal...
    maturation of, by liver, fluoroorotic acid effect on
Liver,metabolism...
    ribosomal RNA maturation by, fluoroorotic acid effect on
Cell nucleus...
    5S ribosomal RNA transport from, to cytoplasm, fluooorotic acid
effect
    on
Cytoplasm...
    5S ribosomal RNA transport to, from nucleus, fluoroorotic acid
effect
    on
  CAS REGISTRY NUMBERS:
703-95-7  ribosomal RNA maturation by liver response to
? ds

Set     Items   Description
S1        203   (YSBC OR OROTATE OR OROTIC) (5N) (TRANSPOR?)
S2         97   RD S1  (unique items)
S3         92   S2 NOT PY>2006
S4         26   S3 AND (GENE OR NUCLEIC OR CLONE OR POLYNUCLEIC OR
DNA)
? logoff y
       12aug09 15:15:02 User226352 Session D1162.3
            $3.84    0.621 DialUnits File5
              $12.20  5 Type(s) in Format  7
           $12.20  5 Types
    $16.04  Estimated cost File5
            $0.61    0.081 DialUnits File6
     $0.61  Estimated cost File6
            $0.93    0.144 DialUnits File24
               $2.70  1 Type(s) in Format  7
            $2.70  1 Types
     $3.63  Estimated cost File24
           $11.67    0.410 DialUnits File34
    $11.67  Estimated cost File34
            $0.18    0.023 DialUnits File40
     $0.18  Estimated cost File40
            $0.19    0.029 DialUnits File41
     $0.19  Estimated cost File41
            $0.39    0.076 DialUnits File45
     $0.39  Estimated cost File45
            $0.71    0.149 DialUnits File50
               $2.14  1 Type(s) in Format  7
            $2.14  1 Types
     $2.85  Estimated cost File50
            $0.41    0.097 DialUnits File65
     $0.41  Estimated cost File65
            $1.76    0.162 DialUnits File71
     $1.76  Estimated cost File71
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        $2.71    0.196 DialUnits File72
 $2.71  Estimated cost File72
        $3.83    0.277 DialUnits File73
          $11.49  3 Type(s) in Format  7
       $11.49  3 Types
$15.32  Estimated cost File73
        $0.45    0.070 DialUnits File76
 $0.45  Estimated cost File76
        $0.16    0.037 DialUnits File98
 $0.16  Estimated cost File98
        $0.88    0.136 DialUnits File103
           $2.28  1 Type(s) in Format  7
        $2.28  1 Types
 $3.16  Estimated cost File103
        $0.13    0.021 DialUnits File136
 $0.13  Estimated cost File136
        $0.12    0.039 DialUnits File143
 $0.12  Estimated cost File143
        $1.64    0.321 DialUnits File144
 $1.64  Estimated cost File144
        $1.25    0.355 DialUnits File154
           $0.72  3 Type(s) in Format  7
        $0.72  3 Types
 $1.97  Estimated cost File154
        $1.14    0.324 DialUnits File155
           $0.72  3 Type(s) in Format  7
        $0.72  3 Types
 $1.86  Estimated cost File155
        $0.59    0.097 DialUnits File156
 $0.59  Estimated cost File156
        $0.26    0.055 DialUnits File162
 $0.26  Estimated cost File162
        $0.54    0.039 DialUnits File172
 $0.54  Estimated cost File172
        $0.26    0.018 DialUnits File305
 $0.26  Estimated cost File305
        $0.08    0.021 DialUnits File369
 $0.08  Estimated cost File369
        $0.11    0.031 DialUnits File370
           $1.62  1 Type(s) in Format  7
        $1.62  1 Types
 $1.73  Estimated cost File370
        $0.08    0.029 DialUnits File393
 $0.08  Estimated cost File393
       $14.50    1.109 DialUnits File399
          $23.84  8 Type(s) in Format  7
       $23.84  8 Types
$38.34  Estimated cost File399
        $2.23    0.078 DialUnits File434
 $2.23  Estimated cost File434
        OneSearch, 29 files,  5.042 DialUnits FileOS
 $1.33  TELNET
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   $110.69  Estimated cost this search
   $110.71  Estimated total session cost   5.426 DialUnits
Logoff: level 05.26.00 D  15:15:02
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